

ABSTRACT

An atomic force microscopy polymer nanolithography method is described. The method of the present invention enables rapid creation of raised or depressed features in a polymer film. The features are generated by mass transport of polymer within an initially uniform, planar film via localized softening of attoliters of polymer by Joule heating. This localized softening of the polymer is accomplished by current flow between the AFM tip and a conductive wafer upon which the layer of polymer is mounted.